

With Marble Imaging, we will unleash the full potential of global Earth Observation data by providing powerful EO based analytics and insights.



www.marble-imaging.de



**Marble Imaging offices** in Bremen

Founded in August 2023 in the German aerospace hub Bremen, we are ready to show the world the real potential of affordable and accessible EO data.

### We aim to be ...

... the first European provider to capture the entire planet daily in very high 80 cm resolution using our constellation of small satellites.

... a leading provider of Earth Observation (EO) data solutions focusing on commercially applicable environmental and security use cases.

The growing Marble Imaging team brings together a wealth of expertise from senior leadership positions within prominent European EO initiatives. Our collective background encompasses the full

Marble Imaging is a German NewSpace company specialized in EO analytics and services. Already now we offer crucial insights analyzing both public and commercial satellite imagery. With the help of Marble's future constellation, we will be able to deliver even more tailored high quality products and plan to emerge as a new and reliable European source to satisfy the increasing demand of institutional and commercial EO users.

# Our Team Up- and downstream EO experience

spectrum of EO science and data processing. Moreover, we possess a deep understanding of leveraging EO data as ultimate beneficiaries.



**Robert Hook** CEO, Aerospace Engineer



**Dr. Gopika Suresh** CSO, Earth **Observation Scientist** 

The Founders



**Alexander Epp** CMO, Journalist



**Dr. Raul Scarlat** Earth Observation Scientist

# The key Ground resolution vs frequency vs price

Copernicus Sentinel-2 Resolution: 10 m Frequency: 6 days Cost: 0€





### PlanetScope

Resolution: 3 m Frequency: Daily Cost: 2-7 € / km²

Marble Imaging Resolution: 80 cm Planned frequency: Daily Cost: 7 € / km<sup>2</sup>





Airbus Pleiades Neo Resolution: 30 cm Frequency: irregular Cost: 18+ € / km<sup>2</sup>

# Flexible and fair pricing models targeted to the customer's needs

To maximize the value gained from our business insights, we are developing a high performance constellation of very high-resolution satellites with daily global coverage. Daily imaging of the entire Earth with 200 Marble satellites





# Our very highresolution small **Satellites**

Satellite **mass around 130 kg** in small satellite form factor

- Launch of first satellite **2026**
- Data available as **preprocessed** and **analysis ready data**
- Distributed via our in development **geospatial portal**

Multispectral data at sub meter resolution harmonized to Sentinel-2

Daily capture capability of 140.000 km<sup>2</sup> per satellite

	Band	Central Wavelength [nm]	Use case	Spatial resolution [m]
B1	Blue	493	Land cover classification	0.8
B2	Green	560	Land cover classification	0.8
B3	Red	665	Land cover classification	0.8
B4	Near Infrared	833	Vegetation health and degradation	0.8
B5	Pan- Chromatic	580	Image sharpening	0.8
B6	Cirrus	1375	Cirrus cloud correction	6
B7	SWIR2	1572	Soil moisture/ Vegetation/ Wildfire	6
B8	SWIR3	1661	Construction/ Fire /minerals mapping	6



### Multispectral camera

Laser terminal for secure and high

volume downlink

Visible, Near Infrared ground resolution **80 cm** Swath 10 km

**Multispectral camera** Short Wave Infrared ground resolution **6 m** Swath 10 km



Founded in Bremen | Germany 08|2023

> Joined ESA BIC Northern Germany 09|2023

Pre-Seed-Round completed 10|2023

> Winner of DLR Small Satellite Payload Competition 11|2023



# Developing groundbreaking **environmental analytics**



# Aquaculture monitoring

We engage in proactive monitoring of the Blue Economy empowering sustainable practices for fishing and aquaculture activities in the distributed coastal regions, monitoring marine ecosystem health, strengthening and economic management of marine resources.

- Monitoring the emergence and development of harmful Algae Blooms & marine pollution, ensuring timely response and mitigation actions to maintain healthy marine ecosystems
- **Mapping aquaculture structures** such as fish farms and cages, including inventory of on-shore fishing ponds, for efficient monitoring, reporting, regulation and protection of aquaculture assets
- Supporting aquaculture and fishing operations by providing early warnings of potential hazards such as infestation
- Land cover change analysis and deforestation detection to support aquaculture certification and regulation



Marble Imaging supports wildfire disaster response and mitigation by offering analytics utilizing Short Wave Infrared and Near Infrared bands that are sensitive to fires. Using SWIR and NIR, the burned areas can be mapped rapidly. Very high-resolution images will improve early detection of small hotspots.

#### Wildfire detection and monitoring

- Hotspot detection
- Burn area mapping
- Haze/smoke detection

Flood detection and monitoring

Flood damage maps

Consortium for first

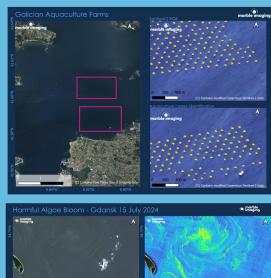
satellite completed

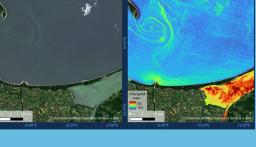
03|2024

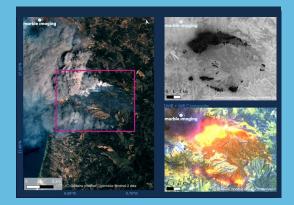
Accepted to the Space-Founders Accelerator 07|2024

Marble transitions from GmbH to AG 06|2024 Signature of payload development contract with ESA 07|2024

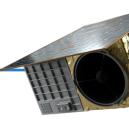








Funding for first satellite complete



# Developing cuttingedge **security analytics**



# Al supported Crisis awareness

Our intelligence product aims at increasing situational awareness in crisis zones by fusing together verified information from Open Source Intelligence with information from conflict databases, additional geospatial intelligence and up to date satellite imagery.

- Monitoring of active conflict zones and regions of heightened tensions as well as critical infrastructure
- **Provision of reports and maps** containing high and very high-resolution satellite imagery, geolocated social media footage, land cover classification and change detection analytics as well as contextual information and sources
- **Detection, identification and tracking** of suspicious maritime activity and vessels involved in Deceptive Shipping Practices such as attempting to evade sanctions and regulations
- **Detection and assessment of marine pollution** with oil or bilge dumping in Marine Protected Areas and High Consequence Areas



With our terrain trafficability analytics, **we assess changing terrain conditions** to support planning of logistical and security operations in challenging landscapes such as off-road, undeveloped, wild and rural environments.

- Detection and estimation of soil moisture properties and load bearing capacity, ensuring that ground conditions are suitable for vehicle movement and operations, reducing risks of soil damage and compaction
- Informed deployment of rescue equipment and emergency vehicles in the areas affected by natural or anthropogenic disaster events, judging the trafficability of terrain when normal roads or bridges are damaged

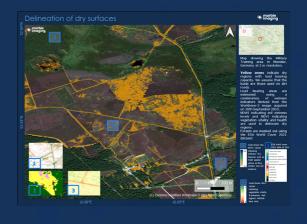
# marble intelligence













Scaling up product development and services



Targeted launch of first satellite Q1|2026

> Building our constellation of up to 200 satellites 2026-2032